

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims:

1. (Previously presented) A method for supporting of a plurality of chip rates in a code division multiple access (CDMA) system between a plurality of user equipment (UE) sharing a plurality of timeslots in a frame, the method comprising:

allocating to a UE at least one timeslot of the plurality of timeslots in the frame at one of the plurality of chip rates based on a chip rate capability of the UE.

2. (Previously presented) The method of claim 1 further comprising allocating, by the CDMA system, a timeslot for use by at least one of the plurality of chip rates.

3. (Previously presented) The method of claim 1 wherein the UE is capable of operating at a plurality of chip rates.

4. (Previously presented) The method of claim 1 wherein the plurality of chip rates are integer multiples of a lowest supported chip rate.

5. (Previously presented) The method of claim 1 further comprising autonomously detecting, by the UE, a chip rate of an allocated timeslot.

6. (Previously presented) The method of claim 1 wherein the frame comprises beacon data in at least one of the plurality of timeslots.

7. (Previously presented) The method of claim 1 wherein the beacon data is in one of the plurality of timeslots operating at the lowest of the plurality of chip rates.

8. (Previously presented) The method of claim 1 wherein the frame comprises first beacon data in one of the plurality of timeslots operating at the first one of the plurality of chip rates

and second beacon data in another of the plurality of timeslots operating at the second one of the plurality of chip rates.

9. (Previously presented) The method of claim 1 wherein the first and second of the plurality of chip rates are controlled independently of each other.

10. (Previously presented) The method of claim 1 wherein the first and second of the plurality of chip rates are commonly controlled.

11. (Previously presented) The method of claim 1 wherein the method comprises transmitting a plurality of instantiations of the at least a first one of the plurality of timeslots in the frame operating at the first chip rate.

12. (Original) The method of claim 11 wherein the plurality of instantiations are separated in the frequency domain.

13. (Previously presented) The method of claim 11 wherein the number of the plurality of instantiations is proportional to the ratio of the bandwidth or the second chip rate system to the bandwidth of the first chip rate system.

14. (Previously presented) The method of claim 1 wherein the first chip rate system operates at substantially the same carrier frequency as the second chip rate system.

15. (Previously presented) The method of claim 1 wherein the method further comprises transmitting to the UE parameters of timeslots via broadcast signalling.

16. (Previously presented) The method of claim 15 wherein the system is a UMTS TDD system, and the step of transmitting to the UE parameters of timeslots comprises transmitting signals broadcast in system information blocks.

17. (Previously presented) The method of claim 1 wherein the method further comprises transmitting to the UE parameters of timeslots via point to point signalling.

18. (Original) The method of claim 17 wherein the point to point signalling defines the timeslot parameters for a single allocation.
19. (Original) The method of claim 17 wherein the point to point signalling defines the timeslot parameters for a multiplicity of allocations.
20. (Original) The method of claim 17 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in radio resource control (RAC) messages.
21. (Original) The method of claim 17 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in medium access control (MAC) messages.
22. (Original) The method of claim 17 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in physical layer messages.
23. (Previously presented) The method of claim 1 wherein the UE receiving the transmitted frame receives an indication of the chip rate applied in a timeslot.
24. (Previously presented) A code division multiple access (CDMA) system for supporting a plurality of chip rates between a plurality of user equipment (UE) sharing a plurality of timeslots in a frame, the system comprising:
- means for allocating to a UE at least one of the plurality of timeslots in the frame at one of the plurality of chip rates based on a chip rate capability of the UE.
25. (Previously presented) The CDMA system of claim 24 wherein the system allocates a timeslot for use by at least one of the plurality of chip rates.
26. (Previously presented) The CDMA system of claim 24 wherein the UE is capable of operating at a plurality of chip rates.
27. (Previously presented) The CDMA system of claim 24 wherein the plurality of chip rates are integer multiples of a lowest supported chip rate.

28. (Previously presented) The CDMA system of claim 24 wherein the UE autonomously detects a chip rate of an allocated timeslot.
29. (Previously presented) The CDMA system of claim 24 wherein the frame comprises beacon data in at least one of the plurality of timeslots.
30. (Previously presented) The CDMA system of claim 24 wherein the beacon data is in one of the plurality of timeslots operating at the lowest of the plurality of chip rates.
31. (Previously presented) The CDMA system of claim 24 wherein the frame comprises first beacon data in one of the plurality of timeslots operating at the first one of the plurality of chip rates and second beacon data in another of the plurality of timeslots operating at the second one of the plurality of chip rates.
32. (Previously presented) The CDMA system of claim 24 wherein the first and second of the plurality of chip rates are controlled independently of each other.
33. (Previously presented) The CDMA system of claim 24 wherein the first and second of the plurality of chip rates are commonly controlled.
34. (Previously presented) The CDMA system of claim 24 wherein the means for transmitting signals from a network to user equipment in the system comprises means for transmitting a plurality of instantiations of the at least a first one of the plurality of timeslots in the frame operating at the first chip rate.
35. (Original) The CDMA system of claim 34 wherein the plurality of instantiations are separated in the frequency domain.
36. (Previously presented) The CDMA system of claim 34 wherein the number of the plurality of instantiations is proportional to the ratio of the bandwidth of the second chip rate system to the bandwidth of the first chip rate system.

37. (Previously presented) The CDMA system of claim 24 wherein the first chip rate system operates at substantially the same carrier frequency as the second chip rate system.
38. (Previously presented) The CDMA system of claim 24 wherein the system further comprises means for transmitting to the UE parameters of timeslots via broadcast signalling.
39. (Previously presented) The CDMA system of claim 38 wherein the system is a UMTS TDD system, and the means for transmitting to the UE parameters of timeslots comprises means for transmitting signals broadcast in system information blocks.
40. (Previously presented) The CDMA system of claim 24 wherein the system further comprises means for transmitting to the UE parameters of timeslots via point to point signalling.
41. (Original) The CDMA system of claim 40 wherein the point to point signalling defines the timeslot parameters for a single allocation.
42. (Original) The CDMA system of claim 40 wherein the point to point signalling defines the timeslot parameters for a multiplicity of allocations.
43. (Original) The CDMA system of claim 40 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in radio resource control (RRC) messages.
44. (Original) The CDMA system of claim 40 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in medium access control (MAC) messages.
45. (Original) The CDMA system of claim 40 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in physical layer messages.
46. (Previously presented) The CDMA system of claim 24 wherein the UE is adapted to receive an indication of the chip rate applied in a timeslot.

47. (Previously presented) A base station for use in a code division multiple access (CDMA) system supporting a plurality of chip rates between a plurality of user equipment (UE) sharing a plurality of timeslots in a frame, the base station comprising:

means for allocating to a UE at least one timeslot of the plurality of timeslots in the frame at one of the plurality of chip rates based on a chip rate capability of the UE.

48. (Previously presented) The base station of claim 47 wherein the base station allocates a timeslot for use by at least one of the plurality of chip rates.

49. (Previously presented) The base station of claim 47 wherein the UE is capable of operating at a plurality of chip rates.

50. (Previously presented) The base station of claim 47 wherein the plurality of chip rates are integer multiples a lowest supported chip rate.

51. (Previously presented) The base station of claim 47 wherein the UE autonomously detects a chip rate of an allocated timeslot.

52. (Previously presented) The base station of claim 47 wherein the frame comprises beacon data in at least one of the plurality of timeslots.

53. (Previously presented) The base station of claim 47 wherein the beacon data is in one of the plurality of timeslots operating at the lowest of the plurality of chip rates.

54. (Previously presented) The base station of claim 47 wherein the frame comprises first beacon data in one of the plurality of timeslots operating at the first one of the plurality of chip rates and second beacon data in another of the plurality of timeslots operating at the second one of the plurality of chip rates.

55. (Previously presented) The base station of claim 47 wherein the first and second of the plurality of chip rates are controlled independently of each other.

56. (Previously presented) The base station of claim 47 wherein networks of the first and second of the plurality of chip rates are commonly controlled.

57. (Previously presented) The base station of claim 47 wherein the means for transmitting signals from the base station to the UE in the system comprises means for transmitting a plurality of instantiations of the at least a first one of the plurality of timeslots in the frame operating at the first chip rate.

58. (Original) The base station of claim 57 wherein the plurality of instantiations are separated in the frequency domain.

59. (Previously presented) The base station of claim 57 wherein the number of the plurality of instantiations is proportional to the ratio of the bandwidth of the second chip rate system to the bandwidth of the first chip rate system.

60. (Previously presented) The base station of claim 47 wherein the first chip rate system operates at substantially the same carrier frequency as the second chip rate system.

61. (Previously presented) The base station of claim 47 wherein the base station further comprises means for transmitting to the UE parameters of timeslots via broadcast signalling.

62. (Previously presented) The base station of claim 61 wherein the system is a UMTS TDD system, and the means for transmitting to the UE parameters of timeslots comprises means for transmitting signals broadcast in system information blocks.

63. (Previously presented) The base station of claim 47 wherein the base station further comprises means for transmitting to the UE parameters of timeslots via point to point signalling.

64. (Original) The base station of claim 63 wherein the point to point signalling defines the timeslot parameters for a single allocation.

65. (Original) The base station of claim 63 wherein the point to point signalling defines the timeslot parameters for a multiplicity of allocations.

66. (Original) The base station of claim 63 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in radio resource control (RRC) messages.

67. (Original) The base station of claim 63 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in medium access control (MAC) messages.

68. (Original) The base station of claim 63 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in physical layer messages.

69. (Withdrawn) User equipment (UE) for use in a CDMA system supporting a plurality of chip rates within a plurality of timeslots in a frame, the user equipment comprising:

means for receiving a signal from a base station directing the UE to at least one timeslot of the plurality of timeslots supporting one of the plurality of chip rates based on a chip rate capability of the UE.

70. (Withdrawn) The UE of claim 69, further comprising:

means for detecting in the received frame predetermined information in one of the plurality of timeslots at the first one of the plurality of chip rates; and

means for transmitting a signal to the base station indicating that the user equipment is able to operate at the second one of the plurality of chip rates.

71. (Withdrawn) The UE of claim 70, wherein the means for transmitting a signal to the base station comprises means for transmitting a signal to the base station indicating that the user equipment is able to operate at both the first one of the plurality of chip rates and the second one of the plurality of chip rates.

72. (Withdrawn) The UE of claim 69 wherein the UE is directed to a lowest supported chip rate timeslot.
73. (Withdrawn) The UE of claim 69 wherein the UE is capable of operation in a TDD 3GPP UMTS system
74. (Withdrawn) The UE of claim 69 wherein the plurality of chip rates are integer multiples of the lowest supported chip rate.
75. (Withdrawn) The UE of claim 74 wherein the first one of the plurality of chip rates is substantially 3.84Mcps and the second one of the plurality of chip rates is substantially 7.68Mcps.
76. (Withdrawn) The UE of claim 70 wherein the predetermined information comprises beacon data.
77. (Withdrawn) The UE of claim 76 wherein the beacon data is in one of the plurality of timeslots operating at the lowest of the plurality of chip rates.
78. (Withdrawn) The UE of claim 69 wherein networks of the first and second of the plurality of chip rates are controlled independently of each other.
79. (Withdrawn) The UE of claim 69 wherein networks of the first and second of the plurality of chip rates are commonly controlled.
80. (Withdrawn) The UE of claim 69 wherein the user equipment is adapted to receive in the same frame the timeslots at a higher chip rate and the timeslots at a lower chip rate.
81. (Withdrawn) The UE of claim 69 wherein the first chip rate system operates at substantially the same carrier frequency as the second chip rate system.
82. (Withdrawn) The UE of claim 69 further comprising means for receiving from the base station parameters of timeslots via broadcast signalling.

83. (Withdrawn) The UE of claim 82 wherein the system is a UMTS TDD system, and the means for receiving from the base station parameters of timeslots comprises means for receiving signals broadcast in system information blocks.

84. (Withdrawn) The UE of claim 69 further comprising means for receiving from the base station parameters of timeslots via point to point signalling.

85. (Withdrawn) The UE of claim 84 wherein the point to point signalling defines the timeslot parameters for a single allocation.

86. (Withdrawn) The UE of claim 84 wherein the point to point signalling defines the timeslot parameters for a multiplicity of allocations.

87. (Withdrawn) The UE of claim 84 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in radio resource control (RRC) messages.

88. (Withdrawn) The UE of claim 84 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in medium access control (MAC) messages.

89. (Withdrawn) The UE of claim 84 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in physical layer messages.

90. (Withdrawn) The UE of claim 69 wherein the user equipment is adapted to autonomously determine the chip rate applied in a timeslot.

91. (Previously presented) A computer-readable medium comprising computer instructions for performing the method of claim 1.

92. (Previously presented) An integrated circuit comprising the means for allocating to a UE at least one timeslot of the plurality of timeslots in the frame at one of the plurality of chip rates based on a chip rate capability of the UE in the base station of claim 47.

93. (Previously presented) An integrated circuit comprising the means for receiving a signal from a base station directing the UE to at least one timeslot of the plurality of timeslots supporting one of the plurality of chip rates based on a chip rate capability of the UE of claim 69.